Unit 4, Chapter 1: Slope

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Ski and Snowboard Club 3

A trip of proportional (and nonproportional) relationships :)

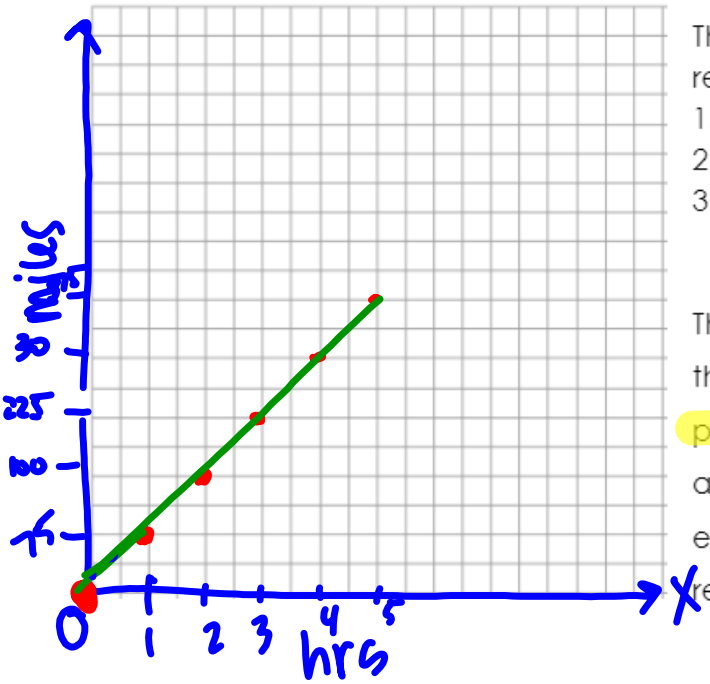
Hadley and Kona are traveling to Mammoth to ski/snowboard with the MMS Ski and Snowboard Club. MMS is about 350 miles from Mammoth.

A.) Hadley leaves with a few other students from MMS Saturday morning at 8 am. Their chaperone drives at a rate of 75 miles per hour. At what time will this group of students arrive in Mammoth? Complete the table and graph to find out.

8am

x	hrs	0	1	2	3	4	5
y	miles	0	75	150	225	300	375

(x,y) (0,0) (1,75) (2,150) (3,225) (4,300) (5,375)



This is a proportional/ nonproportional relationship because....

1.) constant unit rate
2.) passes thru origin
3.) linear

The equation y = kx can be used to describe the relationship; where k is the constant of proportionality ($\frac{75}{1}$), y is miles, and x is hrs. Therefore, the equation $y = \frac{75}{1}x$ represents this relationship.

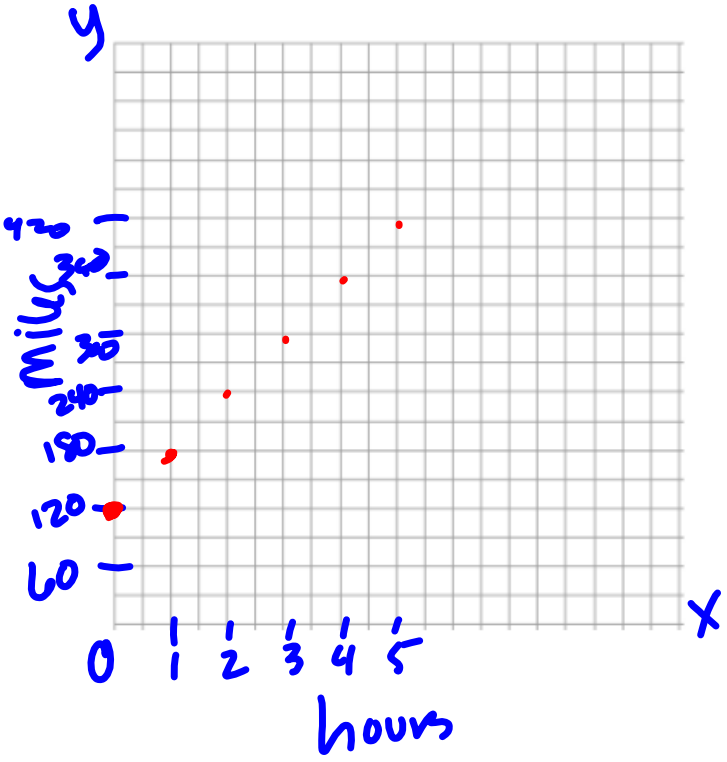
How many miles would the group travel if they kept driving for 6 hours?

y = 75x
y = 75(6)
450

Because this relationship is linear it has a rate of change also known as slope (m). This can be written as y = mx + b. So.... $y = 75x + 0$.

B.) Kona has to attend an out of town family event Friday evening, and is being driven to Mammoth by his/her parents Saturday morning also at 8am. They spend the night at a relative's home that is 120 miles closer to Mammoth than MMS. They travel at a rate of 60 miles per hour. At what time will they arrive in Mammoth? Complete the table and graph to find out.

hrs	miles
0	120
1	180
2	240
3	300
4	360
5	420



The point (2.5, 270) means... At 2.5 hrs, they've traveled 270 miles

This is a proportional/ nonproportional relationship because....

1.) no constant unit rate.
2.) doesn't pass thru origin
3.) linear

The equation y=kx cannot be used to describe this relationship; where k is the constant of proportionality, y is miles and x is hours.

Because this relationship is linear it has a rate of change (m); also known as slope. This can be written as y=mx + b. So...

$y = 60x + 120$

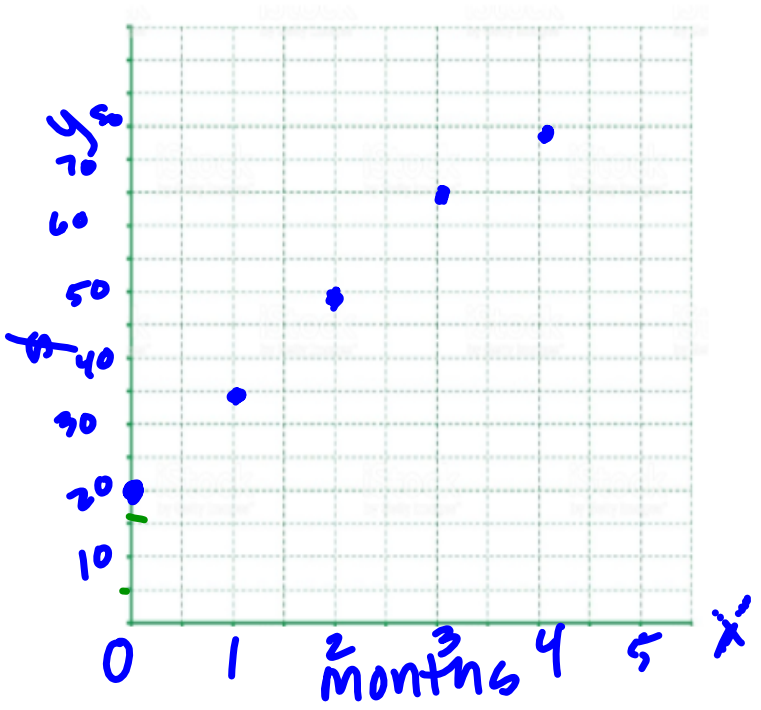
Rate of Change & Slope

Objective: Students will determine the rate of change from a graph.

5

You have just opened a savings account at the bank. You deposit $20 into your account. Each month you deposit $15 more into your account. Use the graph below to plot the balance of your savings account per month over 4 months.

# of Months (x)	$$$ in Account (y)
0	20
1	35
2	50
3	65
4	80



What is the rate of change of your savings account? $15 per 1 month

How does this relate to the graph? every 1 month, move up $15

What might be an equation to represent your savings? $y = 15x + 20$

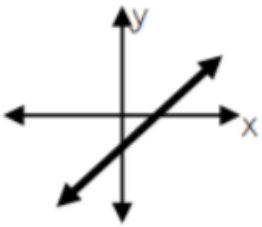
If you were to continue saving at this rate, how much money would you expect to have saved in one year? 180 200 $y = 15(12) + 20$ $y = 200$

Slope	
	• Slope is the rate of change of a linear relationship. • It is the ratio of: $\frac{\Delta y}{\Delta x}$ - change in y values / change in x values • On the graph of a linear relationship, it can be described as the steepness of a line.

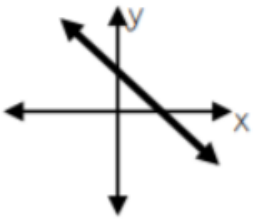
6

Types of Slope

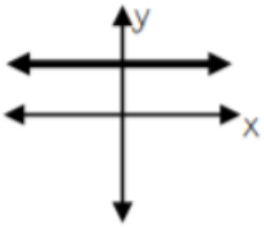
A positive slope increases from left to right.



A negative slope decreases from left to right.

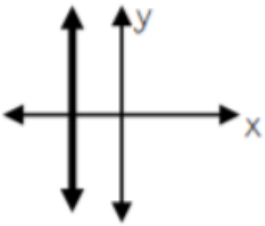


A zero slope is a horizontal line. There is no increase or decrease from left to right.

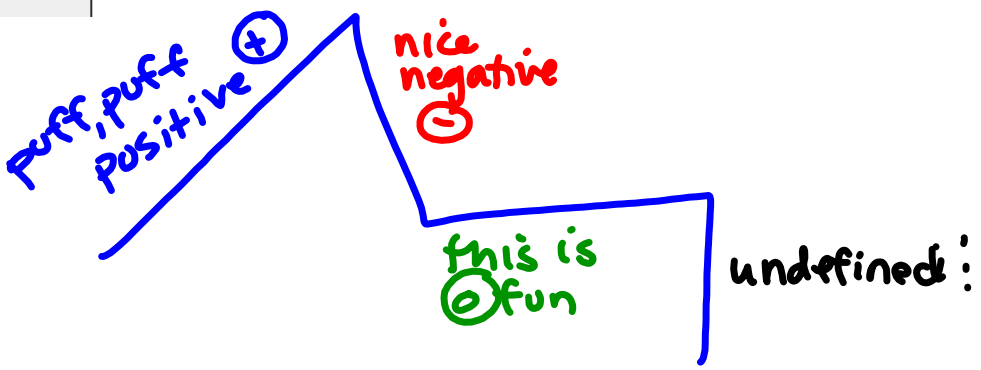


An undefined slope is a vertical line..

und.



Slope Dude might say...



Finding Slope From a Graph

- To find slope from a graph, express the vertical change (y) and the horizontal change (x) as a ratio.

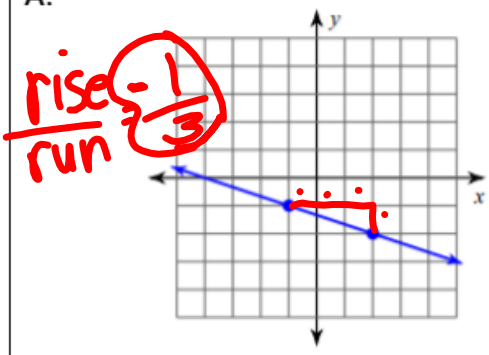
$$\frac{\Delta \text{ vertical}}{\Delta \text{ horizontal}} = \frac{\Delta y}{\Delta x} = \frac{\text{rise}}{\text{run}}$$

p. 7

- You will need any 2 points.
  1. Pick two "pretty" points on the graph.
  2. Draw a right triangle connecting the points.
  3. Count up for the "rise" and count over for the "run".
  4. Write as a ratio and simplify.
  5. Check the direction!!!

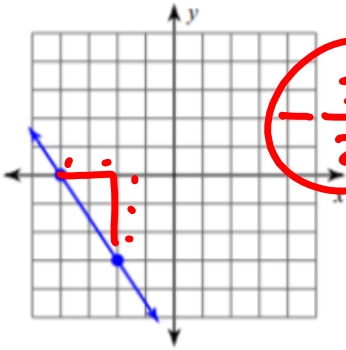
Find the slope of the following linear relationships from the graphs.

A.



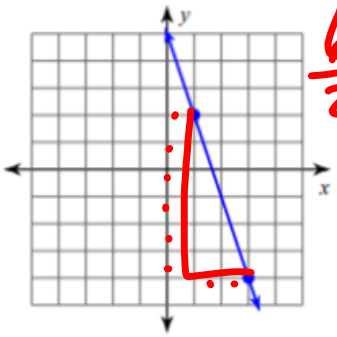
rise/run = $-\frac{1}{3}$

B.



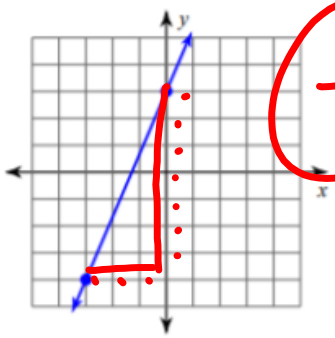
$-\frac{3}{2}$

C.



$\frac{6}{2} = \frac{3}{1}$ or -3

D.



$\frac{7}{3}$

Summary:

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Name_____

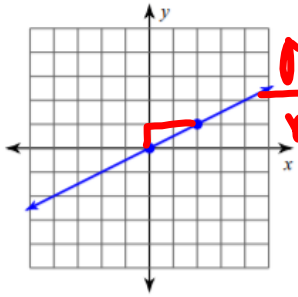
Finding Slope From a Graph

Date_____ Period____

9

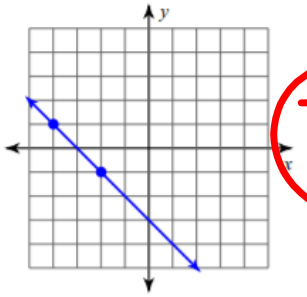
Find the slope of each line.

1)



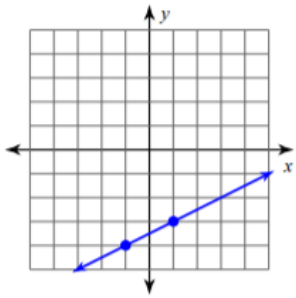
rise/run = 1/2

2)



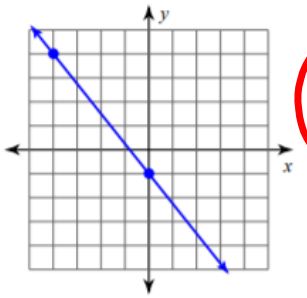
-1/1

3)



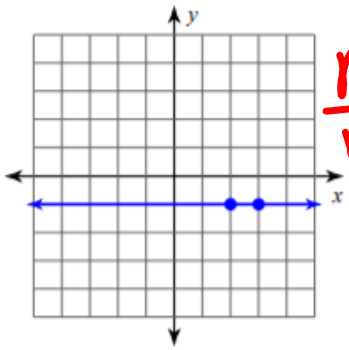
1/2

4)



-5/4

5)

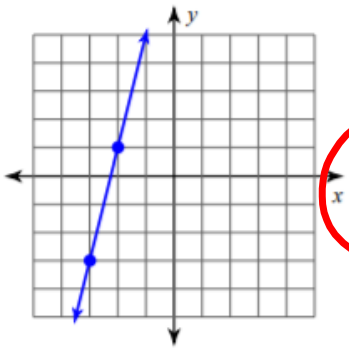


rise/run = 0/1

0

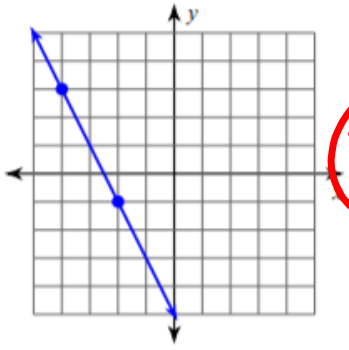
DNE

6)



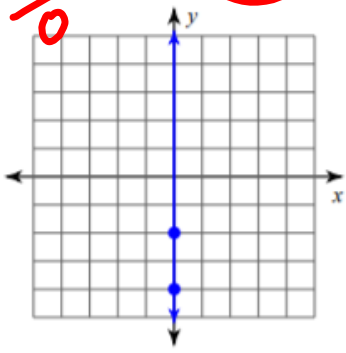
4/1

7)



-2/1

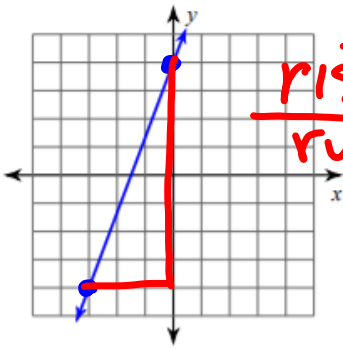
8)



rise/run = 2/0 = NO

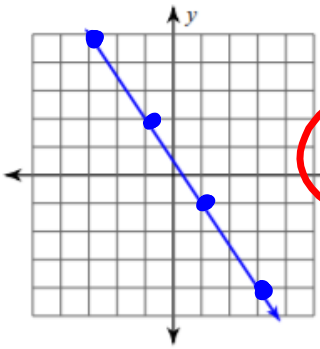
und

9)



$\frac{\text{rise}}{\text{run}} = \frac{8}{3}$

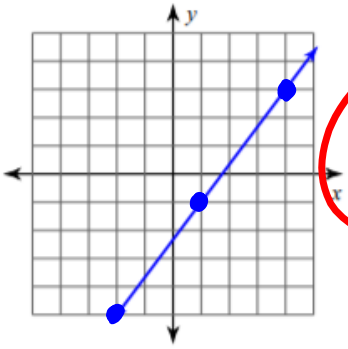
10)



10

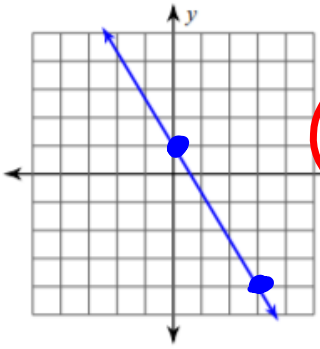
$-\frac{3}{2}$

11)



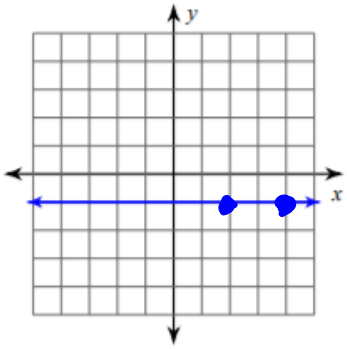
$\frac{4}{3}$

12)



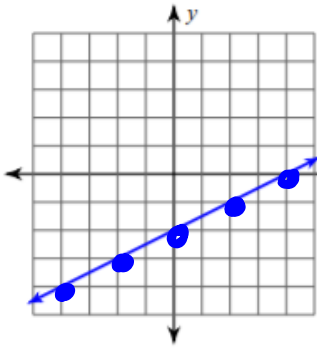
$-\frac{5}{3}$

13)



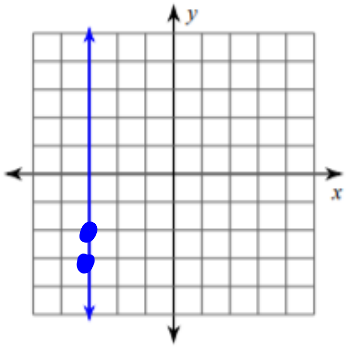
$\frac{0}{2} \cdot \frac{0}{K} = 0$

14)



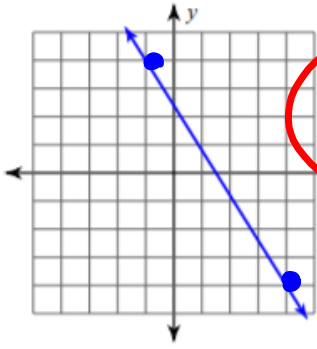
$\frac{1}{2}$

15)



$\frac{1}{0} \cdot \frac{N}{0} = \text{und}$

16)



$-\frac{8}{5}$

Slope Formula

Objective: Students will interpret the rate of change using the slope formula.

Dallas Raines is tracking the weather for Los Angeles, CA. This morning when he started recording, it was 34°. The Mega Doppler 7000 reported the following:

Hours	0	1	2	3	4	5
Temperature	34	36	38	40	42	44

What is the rate of change (aka slope)?

$\frac{\Delta y}{\Delta x} = \frac{2}{1}$

What is the initial value?

34

What might be an equation to represent the relationship between temperature and number of hours?

$y = mx + b$ (slope, initial value)

$y = 2x + 34$

Would the point (7, 48) satisfy the trend? Why or why not?

yes

$y = 2x + 34$

$48 = 2(7) + 34$

$48 = 14 + 34$

$48 = 48$ ✓

Would the point (50, 8) satisfy the trend? Why or why not?

NO

$y = 2x + 34$

$8 = 2(50) + 34$

$8 = 134$ ✗

Slope	• Remember slope is the ratio of: $\frac{\Delta y}{\Delta x} = \frac{\text{rise}}{\text{run}}$ • The slope formula is: $\frac{y_2 - y_1}{x_2 - x_1}$

Use the slope formula to determine the rate of change from each table.

A.

x	0	1	2
y	5	5.5	6

(x_1, y_1, x_2, y_2)

$\frac{y_2 - y_1}{x_2 - x_1} = \frac{6 - 5}{2 - 0} = \frac{1}{2}$

B.

x	3	8	11
y	22	62	86

(x_1, y_1, x_2, y_2)

$\frac{y_2 - y_1}{x_2 - x_1} = \frac{62 - 22}{8 - 3} = \frac{40}{5} = \frac{8}{1}$ or 8

C.

x	5	7	11
y	5	0	-10

$-\frac{5}{2}$

D.

x	-9	-15	-19
y	12	18	24

$\frac{-1}{1}$

E. (2, 4) and (1, 7)

$x_1 y_1 \quad x_2 y_2$

$\frac{y_2-y_1}{x_2-x_1} = \frac{7-4}{1-2} = \frac{3}{-1}$ or -3

F. (-1, 0) and (3, -2)

$x_1 y_1 \quad x_2 y_2$

$\frac{y_2-y_1}{x_2-x_1} = \frac{-2-0}{3+1} = \frac{-2}{4} = \frac{-1}{2}$

G. (1, -3) and (5, 5)

$\frac{2}{1}$

H. (-6, -5) and (-8, -7)

$\frac{1}{1}$

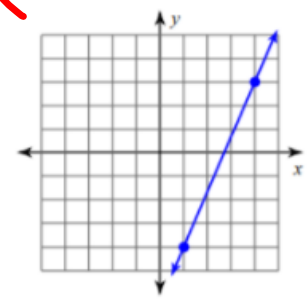
I. (3, 4) and (-5, 4)

0

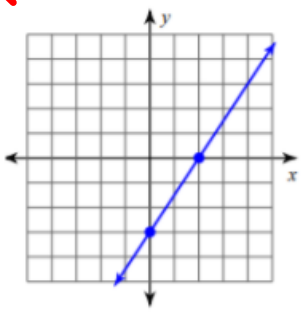
J. (9, -1) and (9, 1)

und.

X



X



Summary:

Name _____ Period _____ 13

$\frac{\Delta y}{\Delta x} = \frac{\text{rise}}{\text{run}}$

3-2 Worksheet - Finding Slope from a Table or From 2 Points

Use the informal method to determine the rate of change for the data in each table. The rate of change is constant for the data in each table. Write the rate as a unit rate.

1.

Number of Balloons	Total Cost of Balloons (in Dollars)
2	6
4	12
6	18
8	24

$\frac{+6}{+2} = 3$

2.

Number of Lawns	Total Earned (in Dollars)
3	25.50
5	42.50
7	59.50
9	76.50

$\frac{+17}{+2}$

Use the formula $\frac{y_2 - y_1}{x_2 - x_1}$ to calculate the unit rate of change for the data in each table. The rate of change is constant for the data in each table.

3.

Number of Raffle Tickets	Total Cost of Raffle Tickets (in Dollars)
2 (x_1)	1 (y_1)
4 (x_2)	2 (y_2)
8	4
10	5

$\frac{y_2 - y_1}{x_2 - x_1} = \frac{2-1}{4-2} = \frac{1}{2}$

4.

x	y
−2	8
0	0
2	−8
4	−16

$\frac{-4}{1}$

14

Use the formula $\frac{y_2 - y_1}{x_2 - x_1}$ to calculate the unit rate of change for the data in each table. The rate of change is constant for the data in each table.

5.

Number of Photos Printed	Total Cost of Photos (in Dollars)
10	2
20	4
30	6
40	8

$\frac{1}{5}$

6.

x	y
3	27
5	45
7	63
9	81

$\frac{9}{1}$

Calculate the rate of change between the points listed in each table. Determine if the table represents a linear relationship.

7.

x	y
2	14
5	35
7	49
10	70

$\frac{7}{1}$

8.

x	y
−10	50
−2	10
4	−20
14	−70

$\frac{-5}{1}$

9.

x	y
−1	−24
2	48
4	90
8	192

10.

x	y
−6	12
−3	6
3	−6
6	−10

15

Kuta Software - Infinite Algebra 1 Name_____

Finding Slope From Two Points Date_____ Period____

Find the slope of the line through each pair of points.

1) (19, –16), (–7, –15)

$x_1 y_1 \quad x_2 y_2$

$\frac{y_2 - y_1}{x_2 - x_1} = \frac{-15+16}{-7-19} = \frac{1}{-26}$

2) (1, –19), (–2, –7)

-4

3) (–4, 7), (–6, –4)

$\frac{11}{2}$

4) (20, 8), (9, 16)

$\frac{-8}{11}$

5) (17, –13), (17, 8)

und

6) (19, 3), (20, 3)

0

7) (3, 0), (–11, –15)

$\frac{15}{14}$

8) (19, –2), (–11, 10)

$-\frac{2}{5}$

9) (6, –10), (–15, 15)

$\frac{-25}{21}$

10) (12, –18), (–15, –18)

0

16

11) (3, –20), (5, 8)

14

12) (15, 8), (–17, 9)

$-\frac{1}{32}$

13) (–19, 12), (–9, 1)

$-\frac{11}{10}$

14) (12, 2), (–7, 5)

$-\frac{3}{19}$

15) (6, –12), (15, –3)

1

16) (9, 3), (19, –17)

-2

18

Find the slope of the line through each pair of points.

9) $(8, 10), (-7, 14)$ $\frac{-4}{15}$

10) $(-3, 1), (-17, 2)$ $-\frac{1}{14}$

11) $(-20, -4), (-12, -10)$ $\frac{-3}{4}$

12) $(-12, -5), (0, -8)$ $-\frac{1}{4}$

13) $(-19, -6), (15, 16)$ $\frac{11}{17}$

14) $(-6, 9), (7, -9)$ $\frac{-18}{13}$

15) $(-18, -20), (-18, -15)$ und.

16) $(12, -18), (11, 12)$ -30

Find the slope of each line. $y = mx + b$ ← y-intercept, m ↓ slope

17) $y = -5x - 1$

18) $y = \frac{1}{3}x - 4$

19) $y = -\frac{1}{5}x - 4$

★ 20) $x = 1$

21) $y = \frac{1}{4}x + 1$

22) $y = -\frac{2}{3}x - 1$

23) $y = -x + 2$ $y = \frac{-1}{1}x + 2$

24) $y = -x - 1$ $y = -1x - 1$

★ 25) $2x + 3y = 9$

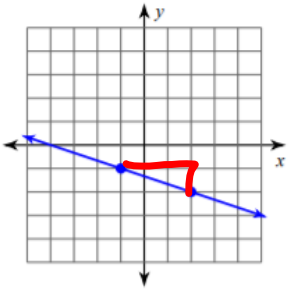
★ 26) $5x + 2y = 6$

17

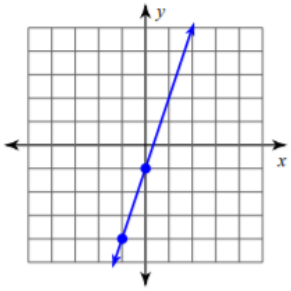
Kuta Software - Infinite Pre-Algebra Name_____

Slope Date_____ Period____

Find the slope of each line.

1) 

rise/run = $-\frac{1}{3}$

2) 

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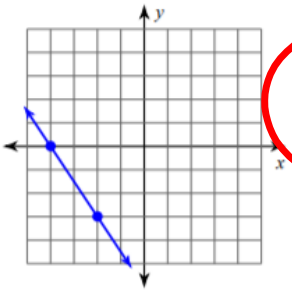
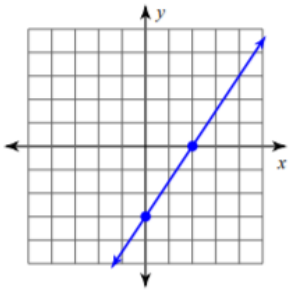
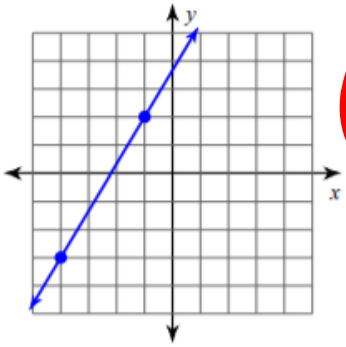
3) 

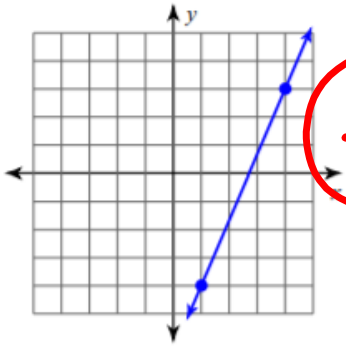
$-\frac{3}{2}$

4) 

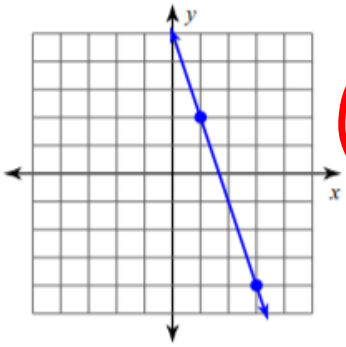
$\frac{3}{2}$

5) 

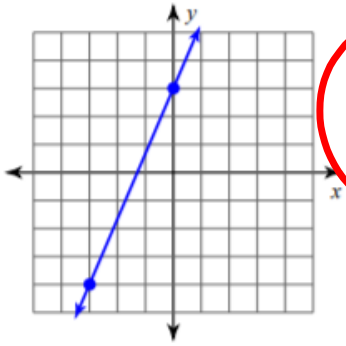
$\frac{5}{3}$

6) 

$\frac{7}{3}$

7) 

-3

8) 

$\frac{7}{3}$

19

Slope Intercept Form

Objective: Students will interpret the rate of change using the slope formula.

Hadley and Kona are opening a lemonade stand. They spend $10 on start up and supplies. They sell about $3 of lemonade per hour.

What is the rate of change (slope) of their earnings?

$\frac{3}{1}$

How much money do Hadley and Kona have at the initial opening of their business?

$-\$10$

What might be an equation to represent Hadley and Kona's lemonade business earnings?

$y = \frac{3}{1}x - 10$

Hadley predicts that after 5 hours, they will have made $5 in profit. Do you agree? Why or why not?

$5 = 3(5) - 10$

$5 = 15 - 10$

$5 = 5$ ✓ yes!

Writing an Equation

- Equations are useful for representing a rule/pattern.
- All linear equations can be represented in $y = mx + b$ Slope-intercept form

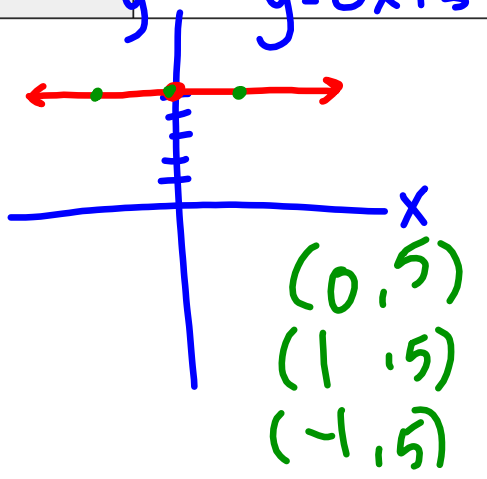
where m = slope

b = y-intercept (initial value)

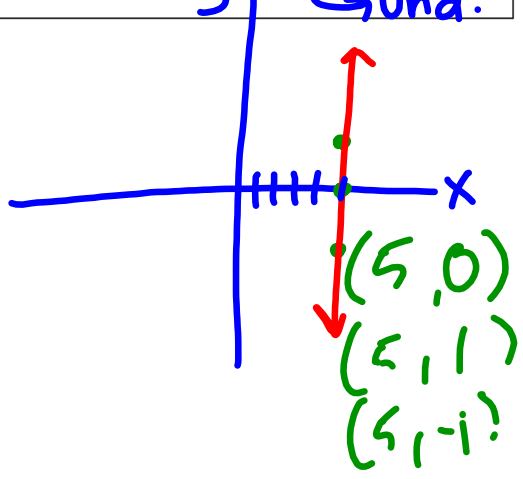
and y and x = coordinate values.

- Slopes of zero and undefined will be "special".

Ex: $y = 5$ $y = 0x + 5$



Ex: $x = 5$ ↳ und.

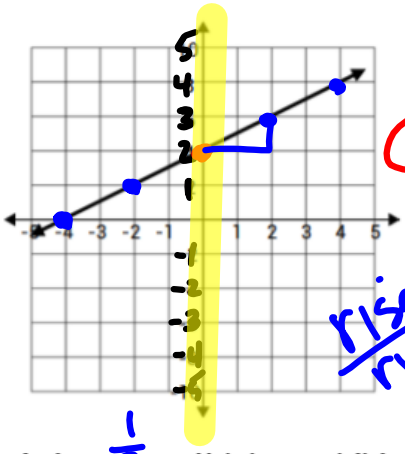


Summary:

Represent each graph with an equation written in slope-intercept form (y = mx + b).

20

A.



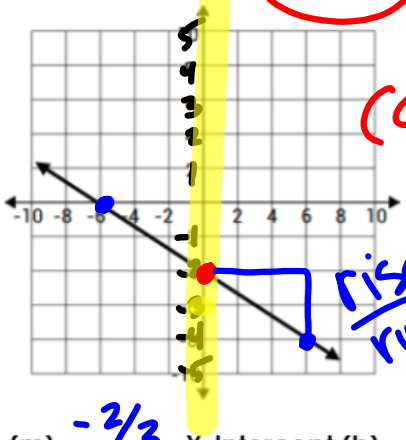
(0,2)

rise/run = 1/2

Slope (m) = 1/2 Y-Intercept (b) = 2

Equation y = 1/2 x + 2

B.



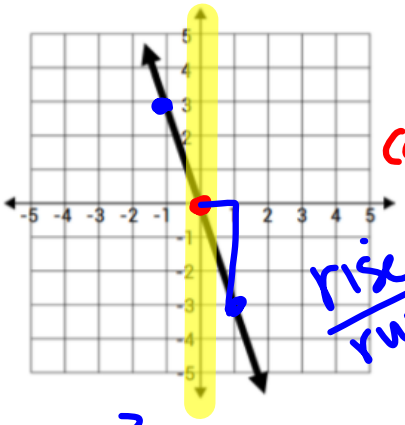
(0,-2)

rise/run = 2/3

Slope (m) = -2/3 Y-Intercept (b) = -2

Equation y = -2/3 x - 2

C.



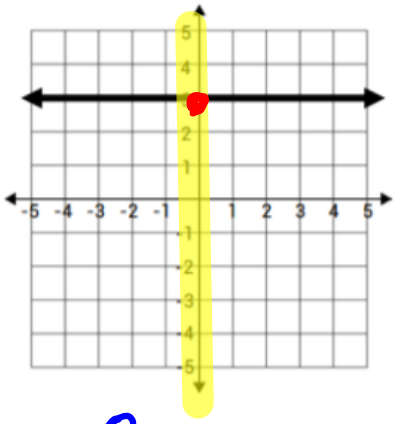
(0,0)

rise/run = 3/1 or -3

Slope (m) = -3 Y-Intercept (b) = 0

Equation y = -3x + 0 or y = -3x

D.



Slope (m) = 0 Y-Intercept (b) = 3

Equation y = 0x + 3 or y = 3

E.

x	0	5	25
y	4	2	-8

x_1 x_2 y_1 y_2

-2/5

Slope (m) = -2/5 Y-Intercept (b) = 4

Equation y = -2/5 x + 4

F.

x	-12	-6	0
y	1	0	-1

x_1 x_2 y_1 y_2

Slope (m) = -1/6 Y-Intercept (b) = -1

Equation y = -1/6 x - 1

$\frac{y_2 - y_1}{x_2 - x_1} = \frac{2-4}{5-0} = \frac{-2}{5}$

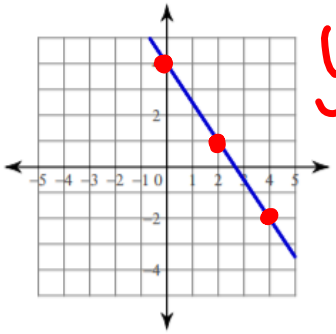
$\frac{-1-0}{0+6} = \frac{-1}{6}$

Kuta Software - Infinite Pre-Algebra Name_____ 21

Writing Linear Equations $y=mx+b$ Date_____ Period____

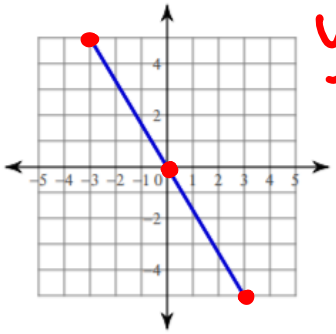
Write the slope-intercept form of the equation of each line.

1)



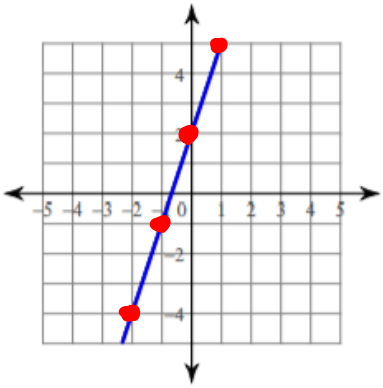
$y=-\frac{3}{2}x+4$

2)



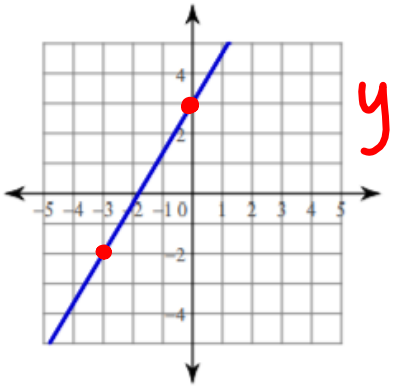
$y=-\frac{5}{3}x+0$

3)



$y=3x+2$

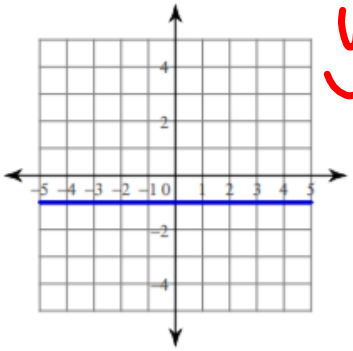
4)



$y=\frac{5}{3}x+3$

22

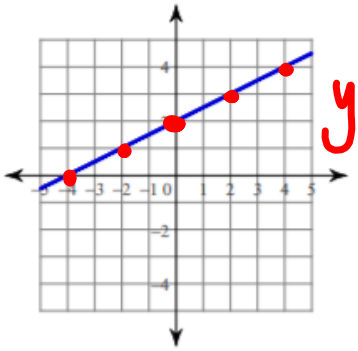
5)



$y = 0x - 1$

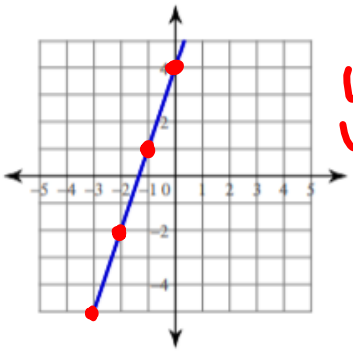
$y = -1$

6)



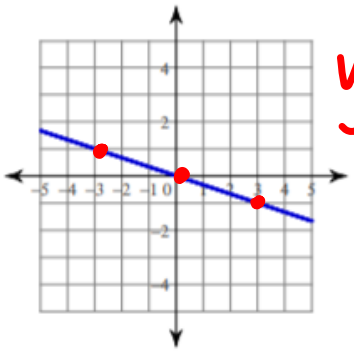
$y = \frac{1}{2}x + 2$

7)



$y = 3x + 4$

8)



$y = -\frac{1}{3}x + 0$

Graphing Linear Equations

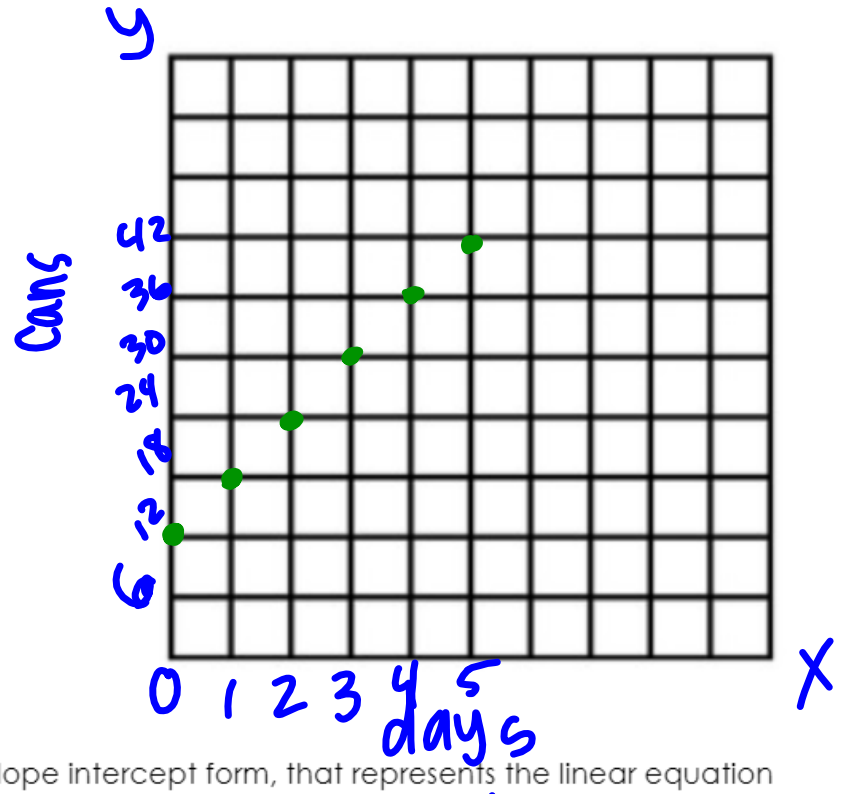
23

Objective: Students will graph linear equations in slope intercept form.

The values below represent the number of cans donated to the local food shelter, where x equals days and y equals total cans. Complete the table of values, then graph.

days cans

X	Y
0	12
1	18
2	24
3	30
4	36
5	42



Write an equation, in slope intercept form, that represents the linear equation graphed above. Label the slope and the y-intercept.

$y = mx + b$

$y = \frac{6}{1}x + 12$

Does the point (-1, 6) satisfy the equation? How might you know?

x y

$6 = 6(-1) + 12$

$6 = -6 + 12$

$6 = 6$ ✓

yes

What about the point (20, 44)? How might you know?

x y

$44 = 6(20) + 12$

$44 = 120 + 12$

$44 = 132$ ✗

NO

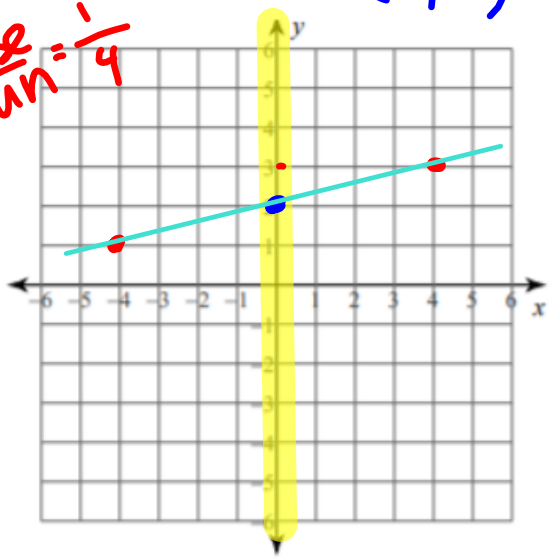
Equations are helpful in recognizing and representing patterns. They are helpful in identifying points on graphs. Equations written in slope intercept form are especially helpful in graphing quickly.

24

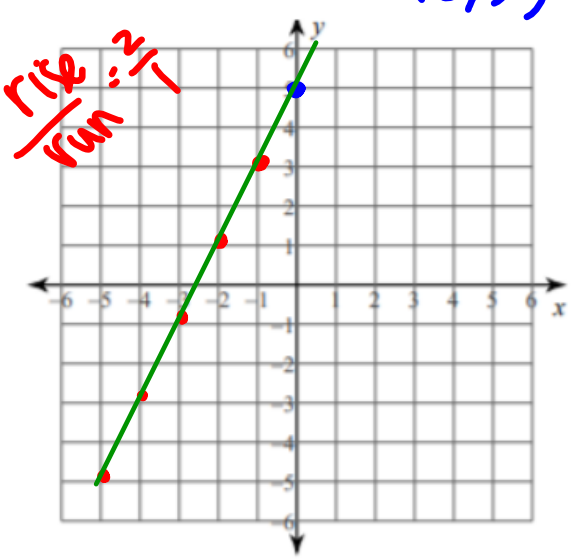
To graph a linear equation...	1. Identify the slope and y-intercept of the relationship when written in slope-intercept form. 2. Plot the y-intercept on the y-axis. 3. Determine the direction of the line and count the "rise" of the slope. Move left or right for the "run" based on the direction of the line. 4. Continue the rise over run in both directions until the line spans the entire coordinate plane.

Graph the following equations written in slope-intercept form.

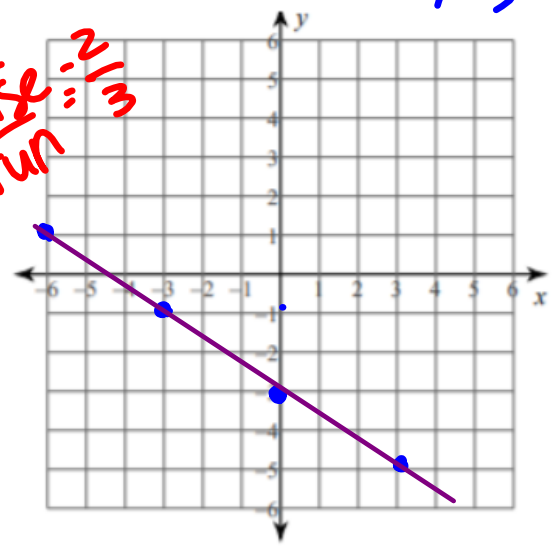
A. $y = 1/4x + 2$ (0,2) rise/run = 1/4



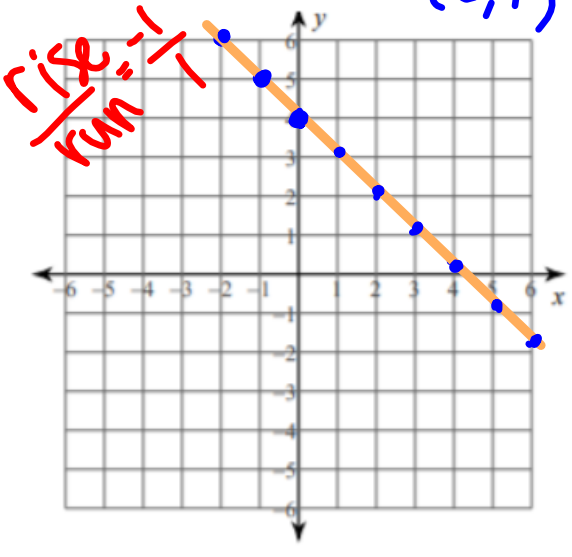
B. $y = 2x + 5$ (0,5) rise/run = 2/1



C. $y = -2/3x - 3$ (0,-3) rise/run = -2/3



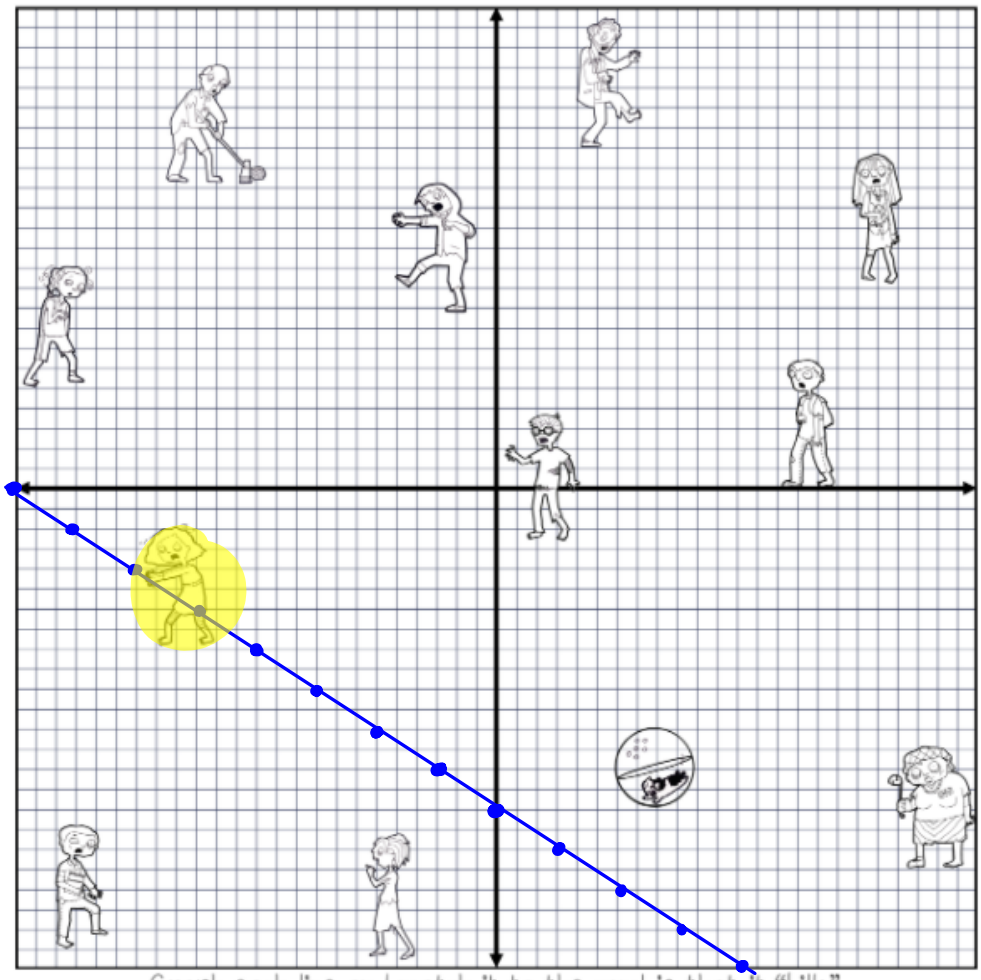
D. $y = -x + 4$ (0,4) rise/run = -1/1



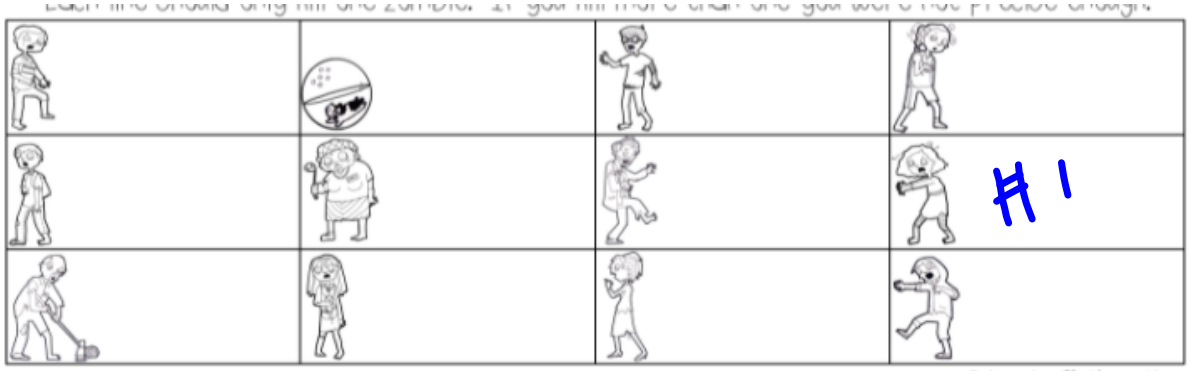
Summary:

Graphing Lines & Killing Zombies 25

Name_____



Graph each line and match it to the zombie that it "kills".
To kill a zombie the line must run through any part of its body.
Each line should only kill one zombie. If you kill more than one you were not precise enough.



#1

26

Graphing Slope-Intercept Form & Killing Zombies

Cut out the 12 boxes, graph each line,
and match the equation of the line to the zombie that it "killed"

1 $y=-2/3x-16$	2 $y=-1/2x-23$	3 $y=-3/2x-22$	4 $y=-1/4x+22$
5 $y=x-23$	6 $y=4/3x+7$	7 $y=1/3x+7$	8 $y=4/3x-2$
9 $y=-x+10$	10 $y=1/3x+23$	11 $y=-2/5x-6$	12 $y=1/2x-5$

HW for 2/10

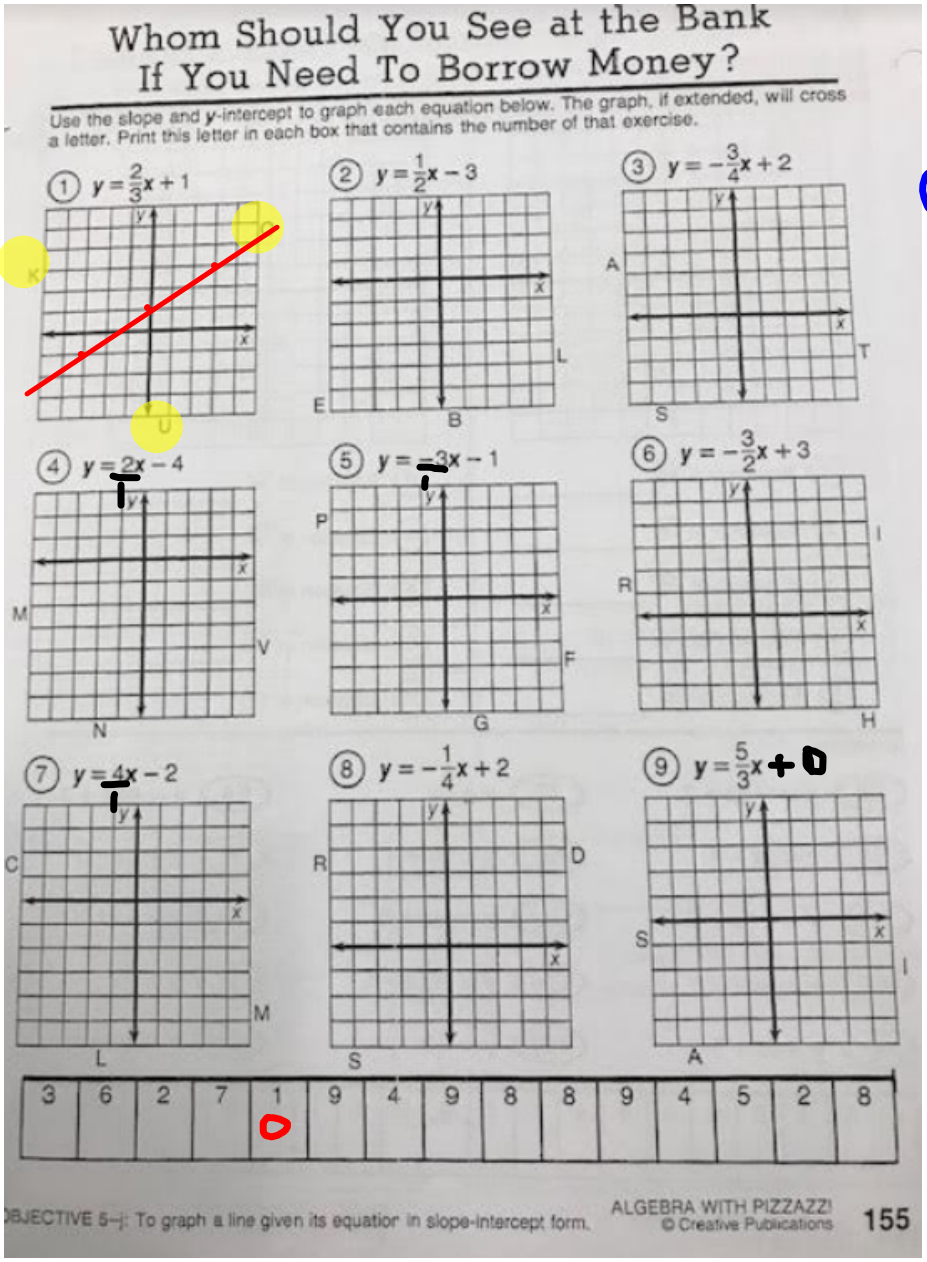
CW/HW for 2/11

27

cw/hw

Whom Should You See at the Bank If You Need To Borrow Money?

Use the slope and *y*-intercept to graph each equation below. The graph, if extended, will cross a letter. Print this letter in each box that contains the number of that exercise.



OBJECTIVE 5–j: To graph a line given its equation in slope-intercept form. ALGEBRA WITH PIZZAZZ! © Creative Publications 155

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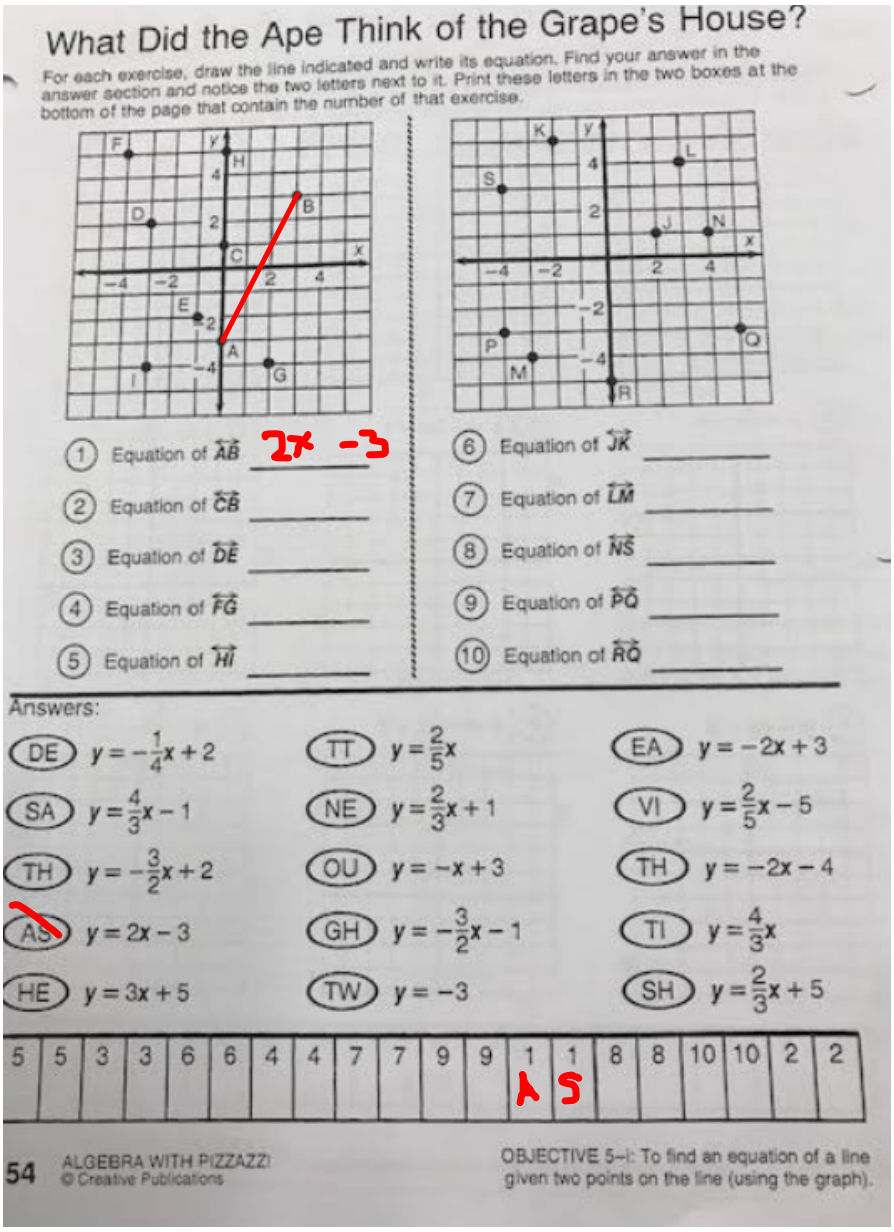
Extra Credit!



What Did the Ape Think of the Grape's House?

For each exercise, draw the line indicated and write its equation. Find your answer in the answer section and notice the two letters next to it. Print these letters in the two boxes at the bottom of the page that contain the number of that exercise.

(1) Equation of $\overleftrightarrow{AB}$ 2x -3

(2) Equation of $\overleftrightarrow{CB}$ _____

(3) Equation of $\overleftrightarrow{DE}$ _____

(4) Equation of $\overleftrightarrow{FG}$ _____

(5) Equation of $\overleftrightarrow{HI}$ _____

(6) Equation of $\overleftrightarrow{JK}$ _____

(7) Equation of $\overleftrightarrow{LM}$ _____

(8) Equation of $\overleftrightarrow{NS}$ _____

(9) Equation of $\overleftrightarrow{PQ}$ _____

(10) Equation of $\overleftrightarrow{RQ}$ _____

Answers:

(DE) $y=-\frac{1}{4}x+2$	(TT) $y=\frac{2}{5}x$	(EA) $y=-2x+3$
(SA) $y=\frac{4}{3}x-1$	(NE) $y=\frac{2}{3}x+1$	(VI) $y=\frac{2}{5}x-5$
(TH) $y=-\frac{3}{2}x+2$	(OU) $y=-x+3$	(TH) $y=-2x-4$
(AS) $y=2x-3$	(GH) $y=-\frac{3}{2}x-1$	(TI) $y=\frac{4}{3}x$
(HE) $y=3x+5$	(TW) $y=-3$	(SH) $y=\frac{2}{3}x+5$

5	5	3	3	6	6	4	4	7	7	9	9	1	1	8	8	10	10	2	2

1 S

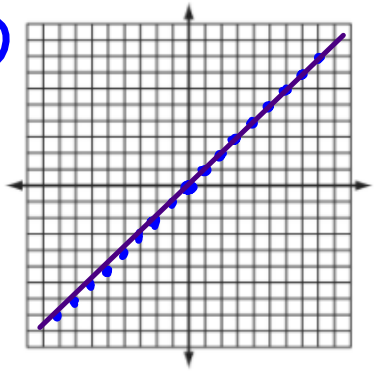
54 ALGEBRA WITH PIZZAZZ! © Creative Publications

OBJECTIVE 5–I: To find an equation of a line given two points on the line (using the graph).

29

4 × 4 From Scenarios/Words

1)



x	y
0	0
1	1
2	2
3	3
4	4

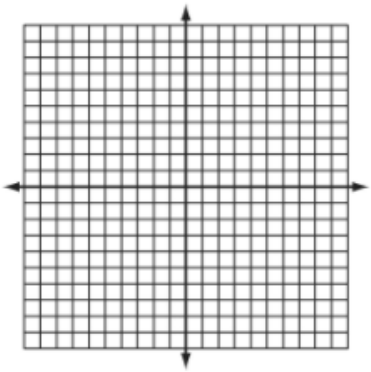
days friends

+1 +1

Equation: $y = \frac{1}{1}x + 0$

Scenario: **Fred moves into town with no friends, and makes one new friend every day.**

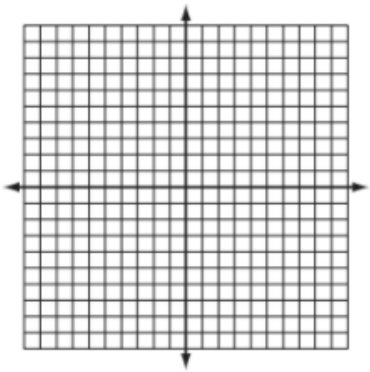
2)



Equation: _____

Scenario: **Jamie spent $5 to start his lemonade stand and made $3 every hour.**

3)



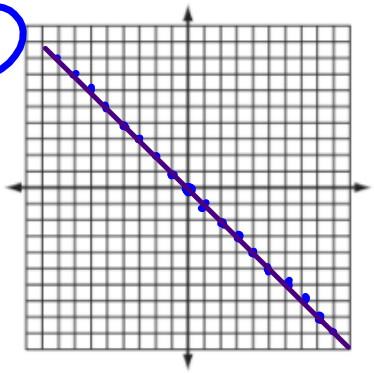
Equation: _____

Scenario: **Ali has $10 and he spends $5 every two days.**

30

4 × 4 From Data

4)



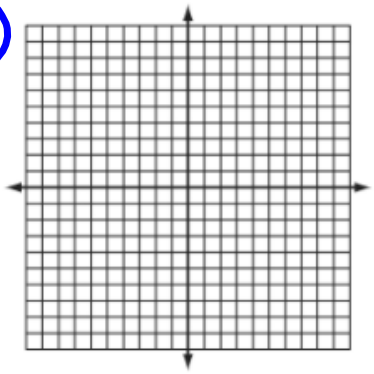
X	Y
-1	1
0	0
1	-1
2	-2
3	-3

×1 -1

Equation: $y = \frac{-1}{1}x + 40$

Scenario: I have $40. I lose $1 every 1 day.

5)

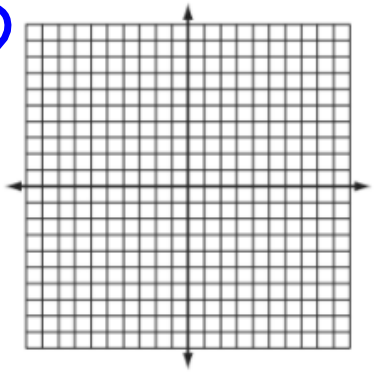


X	Y
-1	-3
0	-1
1	1
2	3

Equation:

Scenario:

6)



X	Y
-2	8
-1	6.5
0	5
1	3.5
2	2

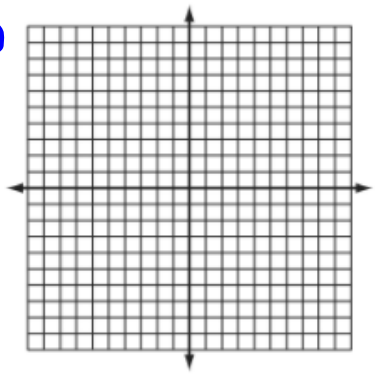
Equation:

Scenario:

4 × 4 From Equations

31

7)



X	Y

Equation: $y = 3x + 2$

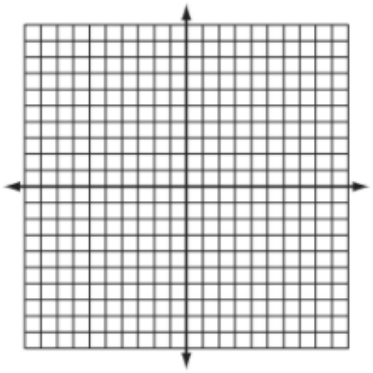
Scenario:

_____

_____

_____

8)



X	Y

Equation: $y = -\frac{1}{2}x + 1$

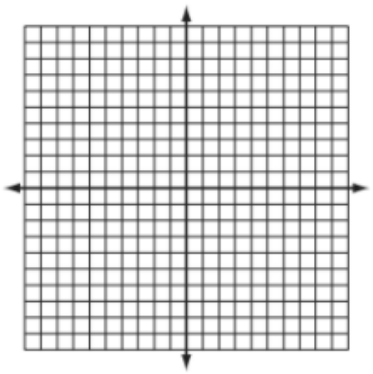
Scenario:

_____

_____

_____

9)



X	Y

Equation: $y = \frac{3}{4}x - 5$

Scenario:

_____

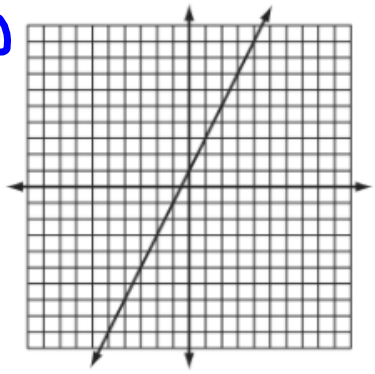
_____

_____

4 × 4 From Graphs

32

10)



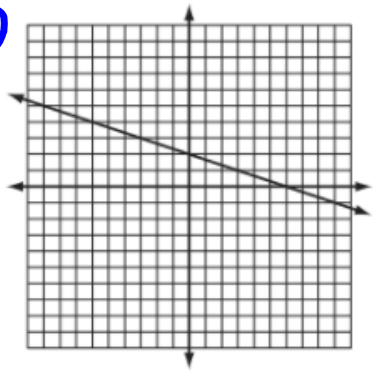
Equation: _____

Scenario: _____

_____

_____

11)



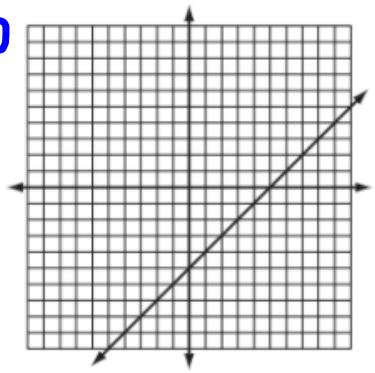
Equation: _____

Scenario: _____

_____

_____

12)



Equation: _____

Scenario: _____

_____

_____

Round Robin: Slope

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*Must be done in class.
If absent on 2/23 or 2/24
must write so.

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Name:

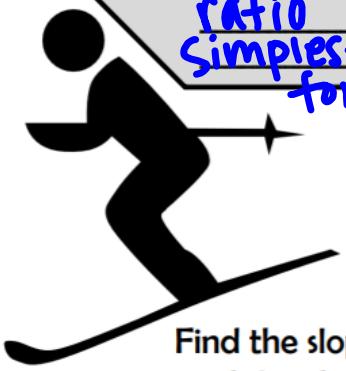
Slope (vertical change over horizontal change) is represented by the letter "m."

$$m = \frac{\text{"rise"}}{\text{"run"}}$$

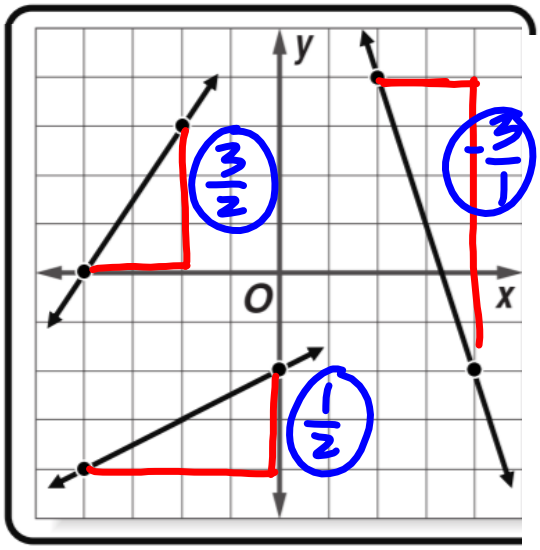
$$m = \frac{\Delta y : y_2 - y_1}{\Delta x \quad x_2 - x_1}$$

Slope represents the rate of change

Slope should be written as a ratio in simplest form



Find the slope of each line below.



SLOPE

The slope of a line can be determined from a table, by graphed units on a coordinate plane, or by x & y coordinates.

Find the slope between the two points.

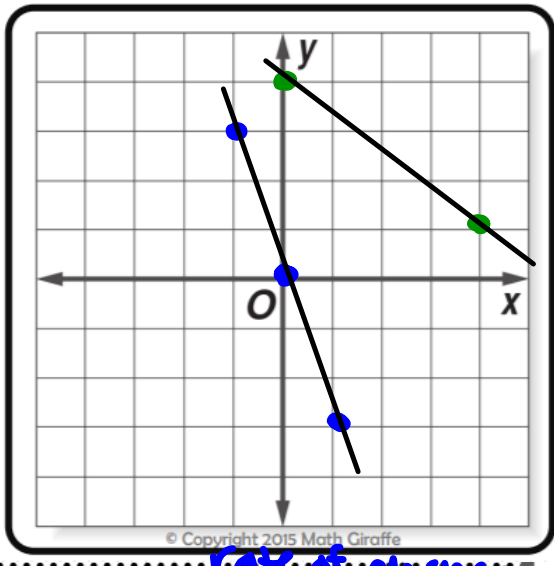
1. (3, -2) and (4, 4) $\frac{4 - -2}{4 - 3} = \frac{6}{}$
2. (6, 0) and (-8, -1) $\frac{-1 - 0}{-8 - 6} = \frac{1}{14}$

The slope of a horizontal line is 0.

The slope of a vertical line is undefined.

Plot a line that starts at the origin and has a slope of -3. Label it "a." $y = \frac{-3}{1}x + 0$

Plot a line that starts at (0, 4) and has a slope of $-\frac{3}{4}$. Label it "b." $y = \frac{-3}{4}x + 4$



Remember:

UP and RIGHT are positive movements;

DOWN and LEFT are negative movements.

Steeper slopes have greater rate of change.

Slope Review

CW

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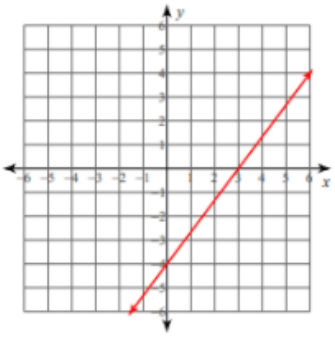
1.) Find the slope from the table.

x	0	2	4
y	2	5	8

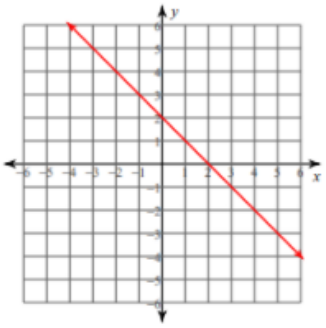
2.) Find the slope from the table.

x	-1	0	1
y	0	-3	-6

3.) Find the slope from the graph.



4.) Find the slope from the graph.



5.) Find the slope from the coordinates.

(9, 4) and (17, 8)

6.) Find the slope from the coordinates.

(-3, -2) and (-3, 2)

7.) Find the slope from the equation.

$y = 1/4x + 10$

8.) Find the slope from the equation.

$y = 8x - 2$